DOCUMENT RESUME

ED 126 038 SP 010 234

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TITLE The Pursuit of Progress through Evaluation.
PUB DATE 2 Apr 76
NOTE 13p.; Paper presented at the National Convention of the American Alliance for Health, Physical Education, and Recreation (Milwaukee, Wisconsin, April 2, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Curriculum Design; *Curriculum Evaluation; *Curriculum Planning; *Educational Objectives; Physical Education; Program Evaluation

ABSTRACT

The Purpose-Process Curriculum Framework (PPCF) is a guide for making curricular decisions that takes into account the overall merit of the curriculum and the merit of specific objectives. One approach to implementing this framework is to utilize a grid with the purposes represented across the top and processes represented along the side. Assume that a staff of physical education teachers has decided to use the PPCF. The first task would be to select combinations of purposes and processes that are to receive emphasis in the physical education program. By marking the appropriate cells of the grid the purposes-processes can be viewed. When all combinations of interest have been recorded on the grid, the overall framwork of the physical education curriculum has been identified. To evaluate the merit of the curriculum, the staff should set forth a written rationale for the choices made with the PPCF. This provides the outside observer with the philosophical orientation of the staff and helps to ensure that choices are made on a logical basis. Once the purpose-process combinations have been selected, the activities that will contribute to these combinations must be identified. Regardless of the selection approach, these activities must be justified as bona fide contributors to the designated combinations. To justify the selections, review the literature to obtain supporting evidence, contact sports specialists, or make the best possible logical judgment. Next, the combinations and activities should be stated as behavioral objectives including the way in which they will be evaluated. Concomitant concerns may also be identified and evaluated such as the side effects of a particular activity. (MM)

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ED126038

THE PURSUIT OF PROGRESS THROUGH EVALUATION

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SP010 234

Paper presented at the National Convention of the American Alliance for Health, Physical Education and Recreation in Milwaukee, April 2, 1976.

Two aspects of curriculum evaluation will be examined in this paper. The first is the frequently ignored concept of evaluating the overall merit of the curriculum; the second, the more familiar process of evaluating specific objectives within the curriculum.

EVALUATING THE MERIT OF CURRICULAR DECISIONS

Let us assume that a staff of physical education teachers has decided to use the Purpose-Process Curriculum Framework (PPCF) as a guide for making curricular decisions. One approach to implementing this framework might be to utilize the grid shown in Table 1. The first task of the physical education staff would be to select combinations of purposes and processes that are to receive emphasis in their physical education program. (The purposes for moving are represented across the top of the grid; the movement processes, along the side.) These purpose-process combinations can be viewed jointly by marking the appropriate cells of the grid. For example, in Table 1 an X has been placed in the cell representing a combination of circulo-respiratory endurance (purpose) and patterning (process). When all purpose-process combinations of interest have been recorded on the grid, the overall framework of the physical education curriculum has been identified.

INSERT TABLE 1 HERE

However, the selections within the PPCF should be justifiable in the eyes of physical educators who are qualified to make such judgments. Otherwise, curricular choices may be merely a reflection of the personal biases of the physical education staff. If, for exmaple, a curriculum is considered too broad or not broad enough by physical education curriculum experts, the physical education staff has not established sufficiently the merit of the curriculum.

How can physical education personnel evaluate the merit of a curriculum? First the staff ought to set forth a written rationale for choices made within the PPCF. This step provides the outside observer with the philosophical orientation toward physical education held by the staff. It also helps to ensure that curricular choices are made on a logical basis. This rationale would provide important input to the curriculum evaluator. One might disagree with the philosophical approach, but at the same time judge the curricular choices to be appropriate for that approach.

It is not always possible to bring in outside evaluators to assess a physical education curriculum. A team of teachers and administrators within a school system might be asked to review the rationale and the subsequent curricular choices. A needs assessment might be conducted to determine whether these choices meet the needs of students, parents, other community members, teachers and administrators. It cannot be overemphasized that these curricular choices are not arbitrary, but must be fully justifiable.

Once the purpose-process combinations have been selected, the activities which will contribute to these combinations must be identified. Presumably different approaches could be taken at this stage. A variety of activities might be used to meet a given purpose at an identified process level. For example, if the purpose for moving is object projection, the student might experience throwing, striking, and kicking a variety of objects in a structured environment. As an alternative approach, a single sport might be selected as a means of emphasizing a purpose. Softball might be an appropriate sport for providing many opportunities for a variety of object projection tasks. Regardless of the approach to selecting activities, these activities must be justified as bona fide contributors to the designated purpose-process combinations.

The first step in justifying the selection of activities is to review the literature to obtain supporting evidence from research studies. Consider circulo-respiratory endurance as a purpose of interest. There is evidence to support the selection of running as an activity that contributes to CR endurance, assuming that the run takes place over a reasonably long distance. If the distance is too short (half a mile, for instance), then running would no longer be an appropriate activity for this purpose. The literature review may not be fruitful in many cases, since experimental studies have been conducted on only a small number of purposes. If this is the case, the next best source to use in justifying the selection of activities is the content specialist in physical education. If the purposes are psychological in nature (e.g., catharsis), the sport psychologist would be the appropriate content specialist to contact. The biomechanics specialist would be called upon to deal with purposes such as object projection. If research evidence does not exist, at least the best possible logical judgment can be made.

EVALUATING SPECIFIC OBJECTIVES

The second major dimension of this paper is the evaluation of specific objectives within the curriculum. In the interest of brevity, one potential objective will be described in detail. In a school setting, all of the major objectives should

be evaluated regularly. This approach would be classified as a goal-oriented rather than a goal-free process.

In the following example, circulo-respiratory endurance has been identified as the purpose, and patterning as the process. The activity selected to contribute to this purpose-process combination is jogging. The objective is stated as follows:

All high school students will develop an above-average level of circulo-respiratory (CR) endurance. An "above-average level" of CR endurance is defined as achieving Cooper's category labeled "GOOD" on the 12-Minute Run Test. 80% of the students will achieve this goal.

When the program goal is stated in behavioral terms, the way in which the goal is to be evaluated is precisely described. The staff might wish to conduct a needs assessment to determine the number of students who can already meet this objective. Since the desired status has been specified, it can be compared with the actual status and, should a discrepancy exist, plans could be made to reduce the discrepancy. Assume that the 12-Minute Run Test has been administered to all high school students and their actual status and the desired status is depicted as in Chart 1.

INSERT CHART 1 HERE

According to this comparison the students' performance level is far from the desired status. Only 16% of the boys and 22% of the girls perform well enough to be classified in the "GOOD" or "EXCELLENT" categories. Using a formative evaluation approach the students' average monthly performance on the 12-minute run can be assessed, and the results plotted as shown in Chart 2.

INSERT CHART 2 HERE

Now the monthly progress toward the desired status can be examined. If, over a period of two or more months, performance levels off and it becomes clear that our desired status will not be reached at the present rate of improvement, the physical education staff must intervene in some way. Intervention may take the form of increasing the class time devoted to improving CR endurance - or, of determining how the presently allocated time for improving CR endurance is being used - or, of using different ways to motivate students.

Once a program goal has been stated in behavioral terms, actual status can be determined and ways to monitor progress toward our desired status can be developed. However, the physical education staff may also wish to identify concommitant concerns that they are not willing to sacrifice for the sake of achieving the goal. For example, it is reasonable to ask what kind of conditioning program is necessary in order to improve CR endurance. Certainly the students must exercise regularly, at least four or five days each week. If the exercise is jogging, the distance run must be gradually increased within a given time limit. Thus the physical education staff must commit a part of every class period to this goal, since the typical activity in class (even basketball and football) may not contribute to a CR endurance goal to any great extent. Is the staff willing to spend the time necessary to develop CR endurance? First it would be interesting to know how much class time is presently devoted to improving CR endurance. It would be possible to chart the way in which time is allocated in physical education classes. A student from study hall could easily record the type of information shown in Chart 3.

INSERT CHART 3 HERE

After reviewing this chart, the staff may decide that a goal involving actual improvement of CR endurance is not realistic because the achievement of such a goal would require too much class time. The goal might be re-written to suggest that students should understand the need for developing and maintaining CR endurance. On the other hand, the staff may decide this goal is so important that it warrants using whatever class time necessary.

A second example of a concommitant concern the staff might not want to sacrifice is the attitude of students toward the fitness goal. Students could be forced to run for 12 minutes every class period, but if they dislike this activity they might develop negative attitudes toward physical fitness - even toward physical education - which might be retained throughout the remainder of their school years as well as after graduation. If the staff wants to be certain that student attitudes toward improving CR endurance remain positive during the year, this attribute could be measured as shown in Chart 4.

INSERT CHART 4 HERE

Each student would be asked to circle the number that best represents his feelings. Little time is required to obtain this information; therefore, the student can be asked to record his response as he leaves class. In addition, he is not asked to write anything on the form, so his anonimity is ensured. One word of caution here - one should avoid collecting this type of data only on one day of the week. If the data were always collected on Fridays, the attitudes might be affected by the impending weekend or by fatigue from the previous school week. A random selection of days to administer the test is better. The averages of the responses for all students can be calculated every week and plotted as in Chart 5.

INSERT CHART 5 HERE

Since the rating of "4" represents the neutral point on the scale, it would be desirable if each average fell above that point. If not - if more students felt "awful" about jogging than "great" - some type of intervention is necessary. Initially, the physical education staff might talk to the students to find out why they have negative feelings. The students might be asked to suggest alternatives.

SUMMARY

In summary, the curriculum evaluator must be able to judge the merit of the total curriculum as well as the worthiness of specific goals. Only then is it appropriate to assess the extent to which curricular goals are being attained. However, even this assessment cannot be conducted in isolation, but must be considered in conjunction with the side effects viewed as important by the physical education staff.

	MAN MASTER OF HIMSELF							MAN IN SPACE						MAN IN A SOCIAL WORLD								
	Physiological Efficiency			Psychic Equilibrium				Spatial Orientation			Object Manipulation			Communi-cation			Group Interaction			Cultural Involvement		
ACTIVITY	C-R Eff.	Mech. Eff.	N-M Eff.	Joy	Self Know	Catharsis	Challenge	Awareness	Relocation	Relationship	Maneuver Weight	Object Projection	Object Reception	Expression	Clarification	Masking	Teamwork	Competition	Leadership	Participation	Movement Appreciation	Cultural Preservation
Perceiving																						
Patterning	X																					
Adapting																						
Refining																						
Varying																						
Improvising																						
Composing																						

TABLE 1

12-MINUTE RUN CATEGORIES	ACTUAL STATUS		DESIRED STATUS	
	BOYS	GIRLS	BOYS	GIRLS
EXCELLENT (V)	6%	7%		
GOOD (IV)	10%	15%	80%	80%
AVERAGE (III)	27%	33%		
FAIR (II)	33%	25%	20%	20%
POOR (I)	24%	20%		

CHART 1.

DISCREPANCY BETWEEN ACTUAL AND

DESIRED STATUS ON 12-MINUTE RUN

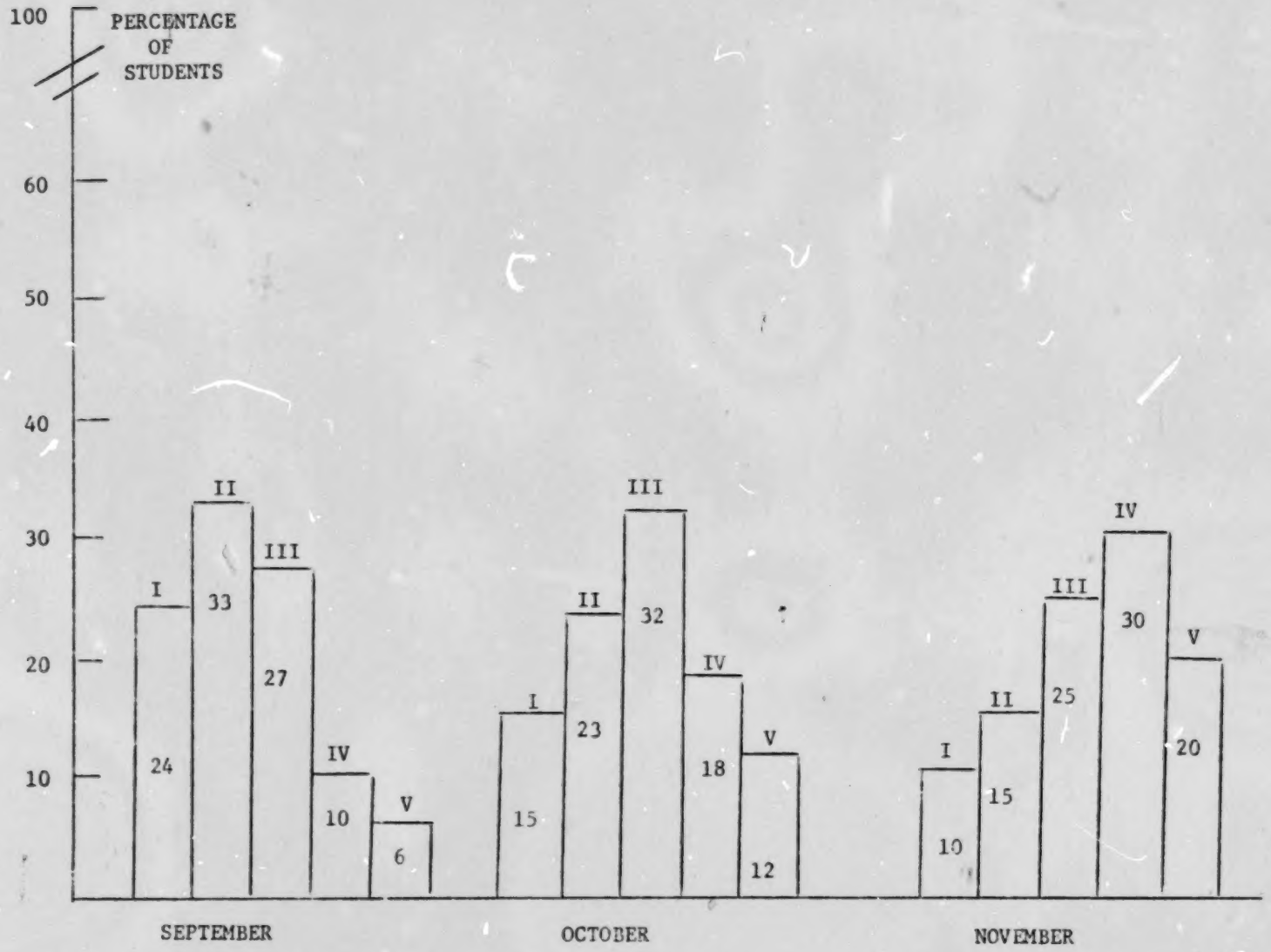

CHART 2.
PLOT OF MONTHLY PERFORMANCE
LEVELS ON 12-MINUTE RUN

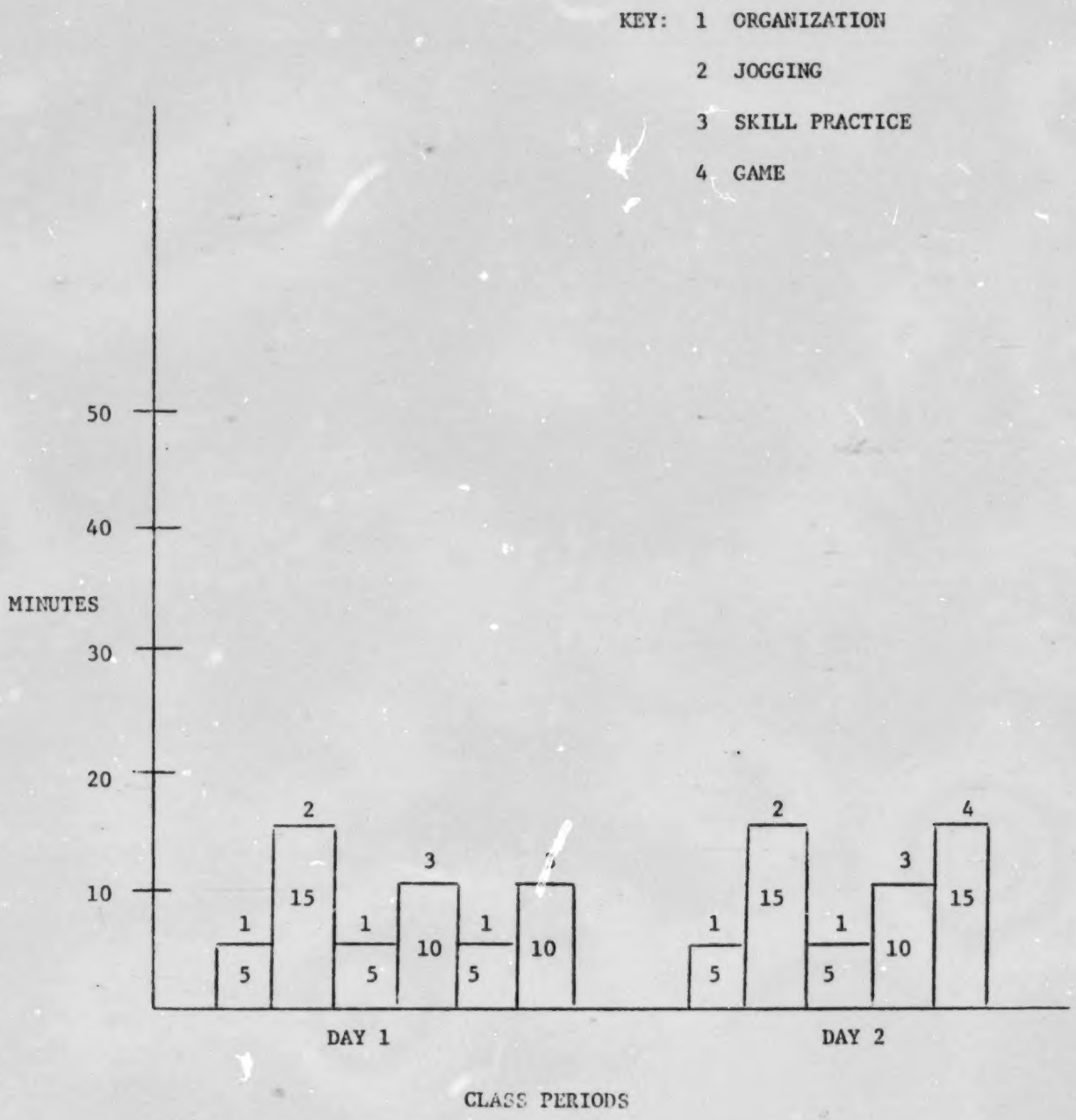

CHART 3.

ALLOCATION OF TIME IN
PHSYICAL EDUCATION CLASS

HOW DID YOU FEEL ABOUT JOGGING TODAY?

AWFUL 1 2 3 4 5 6 7 8 GREAT

DATE: _____

CHART 4.

METHOD OF MEASURING STUDENT

ATTITUDE TOWARD JOGGING

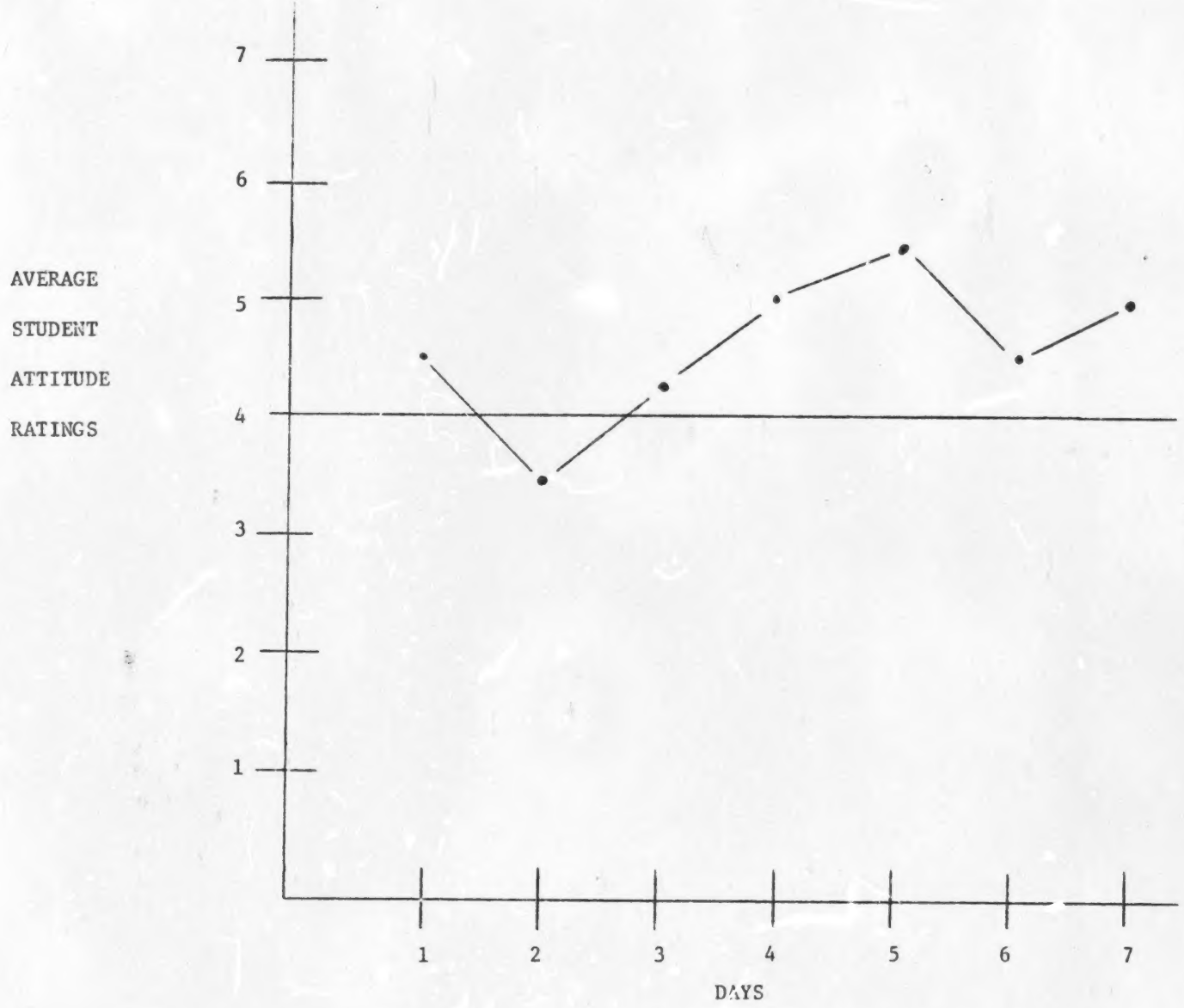

CHART 5.
STUDENT ATTITUDES TOWARD JOGGING